

healing and development. Angiogenesis is a complex biological process involving many factors and cell types to produce new blood vessels. Many natural factors have been found to have angiogenic activity including platelet-derived growth factor, fibroblast-derived growth factor, epidermal growth factor, vascular endothelial-derived growth factor, etc. Arterial and venous endothelial cells and smooth muscle cells have been found to be sensitive to fluid dynamic shear stress and mechanical strain and to release pro-angiogenic factors (e.g., platelet-derived growth factors A and B, and basic fibroblast growth factor) in response to such stimuli (Davies "Mechanisms involved in endothelial responses to hemodynamic forces" *Atherosclerosis* 131:S15-S17, June 1997; Diamond *et al.* "Tissue plasminogen activator messenger RNA levels increase in cultured human endothelial cells exposed to laminar shear stress" *Journal of Cell Physiology* 143:364-371, 1990; Hsieh *et al.* "Shear stress increases endothelial platelet-derived growth factor mRNA levels" *American Journal of Physiology* 260:H642-H646, 1991; Malek *et al.* "Fluid shear stress differentially modulates expression of genes encoding basic fibroblast growth factor and platelet-derived growth factor B chain in vascular endothelium" *Journal of Clinical Investigation* 92:2013-2021, 1993; Mason "The ins and outs of fibroblast growth factors" *Cell* 78(4):547-552, August 1994; Mitsumata *et al.* "Fluid shear stress stimulates platelet-derived growth factor expression in endothelial cells" *American Journal of Physiology* 265(1):H3-H8, July 1993; Sumpio "Hemodynamic forces and the biology of the endothelium: signal transduction pathways in endothelial cells subjected to physical forces in vitro" *Journal of Vascular Surgery* 13(5):744-746, May 1991; Ichioka *et al.* "Effects of shear stress on wound-healing angiogenesis in the rabbit ear chamber" *Journal of Surgical Research* 72:29-35, 1997; each of which is incorporated herein by reference). Shear stress is also instrumental in the control of nitric oxide, endothelin-1, transforming growth factor β_1 , and a host of others, many of which may also contribute to angiogenesis.--

Please substituted the following paragraph for the paragraph beginning on page 5, line 5:

--In a preferred embodiment, the angiogenic factors produced by the vascular cells in response to the external compression include, but are not limited to, growth factors (e.g., platelet-derived growth factor, fibroblast-derived growth factor, epidermal growth factor, vascular